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54 Immunoassay apparatus and method.

57 Fluorescent immunoassay apparatus and method employ-
ing a disposable consisting, in a preferred embodiment, of a
short length of precise diameter capillary tubing having an
axially disposed optical fiber to which is immobilized a mono-
layer of a component of the antibody-antigen complex (e.g., an
antibody), an inert diluent, and a preload of a known amount of
tagged complement to the immobilized component (e.g., a
fluorescent-tagged antigen). The dimensions of the fiber and
the capillary tubing are chosen so as to allow the tube to fill
itself by capillary action once an end of the tube is immersed
into the sample. Precise timing and ballistic measurements
may, if desired, be avoided by insuring the incubation time is
larger than the diffusion time necessary to scavenge the vo-
lume between the fiber and the capillary tubing. Fluorometric
measurement is made by total reflection fluorescence tech-
niques.

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ACTORUM AB

ITEM 1